REMARKS

This Amendment is filed in response to the Office Action dated November 14, 2005, which has a shortened statutory period set to expire February 14, 2006.

Allowable Subject Matter

Applicants greatly appreciate the Examiner's indication of allowable subject matter. Specifically, Claims 37-59 are allowed. Moreover, Claims 3-12, 15-24, 28-36 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claim.

Applicants have rewritten Claims 3, 11, 15, 23, 28, 32, and 36 in independent form to include the limitations of the base claim and any intervening claim. Based on these amendments, Applicants request reconsideration and withdrawal of the objection to Claims 3, 11, 15, 23, 28, 32, and 36.

Claims 4-10 depend from Claim 3, Claim 12 depends from Claim 11, Claims 16-22 depend from Claim 15, Claim 24 depends from Claim 23, Claims 29-31 depend from Claim 28, and Claims 33-35 depend from Claim 32. Therefore, Claims 4-10, 12, 16-22, 24, 29-31, and 33-35 are patentable for at least the reasons presented for Claims 3, 11, 15, 23, 28, and 32. Based on those reasons, Applicants request reconsideration and withdrawal of the objection to Claims 4-10, 12, 16-22, 24, 29-31, and 33-35.

Claims 1-2 and 60-63 Are Patentable Over Peeters

Claim 1 recites, "adjusting the reference channel estimate based upon the correction factors". Applicants respectfully submit that Peeters fails to disclose or suggest this limitation. As correctly noted in the Office Action, the weighted phase errors are used to produce a clock timing error τ_e

that can control either continuous time or discrete time based synchronization structures. Col. 10, lines 42-44. Notably, this clock timing error is not used to adjust the reference channel estimate. Thus, Peeters attempts synchronization using a different method than that recited by Applicants.

As taught by Applicants in the Specification, paragraph [0012]:

> The channel estimate shows how the channel affects the amplitude and phase of the samples of the long symbols. The inverse of the channel estimate gives an indication of how the samples of a received data signal need to be adjusted in order to compensate for the effect of the channel.

As further taught by Applicants in the Specification, paragraph [0014]:

> Unfortunately, the inverse of the channel estimate may become invalid with the passage of time due to magnitude changes, frequency offset error, timing drift, and phase noise, and inappropriate to use for decoding data symbols. For example, the pilots of the long symbols on which the inverse channel estimate is based may have an average power magnitude that is different from the average power magnitude of the pilots of a data symbol. Since the 802.11a standard allows transmission using quadrature amplitude modulation, proper decoding of data symbols depends on accurate determination of the amplitude of the subcarriers in a data symbol. Using an inverse channel estimate to decode a data symbol that has pilots whose average power magnitude is different from the average power magnitude of the pilots of the long symbol on which the inverse channel estimate is based may result in improper decoding of the data symbol.

Thus, Applicants submit that adjusting the reference channel estimate based upon the correction factors can advantageously improve decoding of data symbols.

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Because Peeters fails to disclose or suggest adjusting the reference channel estimate, Applicants request reconsideration and withdrawal of the rejection of Claim 1.

Claim 2 depends from Claim 1 and therefore is patentable for at least the reasons presented for Claim 1. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claim 2.

Claim 60 recites, "scaling the reference channel estimate based upon the scaling factor". Therefore, Claim 60 is patentable for substantially the same reasons presented for Claim 1. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claim 60.

Claims 61-63 depends from Claim 60 and therefore are patentable for at least the reasons presented for Claim 60. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claims 61-63.

Claims 13-14, 25-27 Are Patentable Over Peeters In View Of Gupta

Claim 13 recites, "adjusting the reference channel estimate based upon the first correction factors". Therefore, Claim 13 is patentable for substantially the same reasons presented for Claim 1. Moreover, Gupta also fails to disclose or suggest adjusting the reference channel estimate. Because Peeter and Gupta fail to disclose or suggest adjusting the reference channel estimate, Applicants request reconsideration and withdrawal of the rejection of Claim 13.

Claim 14 depends from Claim 13 and therefore is patentable for at least the reasons presented for Claim 13. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claim 14.

Claim 25 recites, "adjusting the reference channel estimate based upon the second correction factors". Therefore, Claim 25

is patentable for substantially the same reasons presented for Claims 1 and 13. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claim 25.

Claims 26-27 depends from Claim 25 and therefore are patentable for at least the reasons presented for Claim 25. Based on those reasons, Applicants request reconsideration and withdrawal of the rejection of Claims 26-27.

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CONCLUSION

Claims 1-63 are pending in the present Application. Allowance of these claims is respectfully requested.

If there are any questions, please telephone the undersigned at 408-451-5907 to expedite prosecution of this case.

Respectfully submitted,
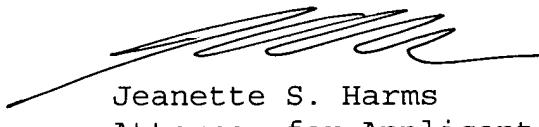
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I hereby certify that this correspondence is being deposited with the United States Postal Service as FIRST CLASS MAIL in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 30, 2006.

1/30/2006
Date

Signature: Rebecca A. Baumann

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